

Application No. 10/720,594

**Remarks**

Applicant respectfully requests reconsideration of the present application in view of the following remarks.

By the present communication, claims 4-6, 8 and 10-27 are pending, with claims 4-6, 8 and 10-16 under active prosecution. The present status of all claims in the application are provided in the Listing of Claims presented herein beginning on page 2 of this document.

**Rejection under § 103(a)****a) Relevant Law**

To establish a *prima facie* case of obviousness, three criteria must be met; there must be some motivation or suggestion, either in the cited publications or in knowledge available to one skilled in the art, to modify or combine the cited publications; there must be a reasonable expectation of success in combining the publications to achieve the claimed invention; and the publications must disclose or suggest all of the claim limitations. *In re Vaack*, 20 USPQ2d 1438 (Fed. Cir. 1991); MPEP §2142. In analyzing obviousness, the Court of Appeals for the Federal Circuit has repeatedly cautioned that:

[t]he factual inquiry... must be based upon objective evidence of record. ... [T]he best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references... [P]articular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed.

*In re Sang Lee*, 277 F.3d 1338, 1343 (Fed. Cir. 2002)(internal citations omitted).

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**b) Rejection of Claims 4-6, 8 and 10-16 over Richardson in view of Ruddy**

The rejection of claims 4-6, 8 and 10-16 under S 103(a), as allegedly unpatentable over Richardson (US Pat. No. 4,545,017) in view of Ruddy (US Pat. No. 6,527,130) is respectfully traversed. Neither Richardson nor Ruddy, nor the combination thereof, teach or suggest every element of the claims.

By way of background, the invention as presently claimed, provides a system that provides safer operation of the traveling block on a workover rig, as well as on an oil drilling rig. Specifically, the invention as presently claimed provides a system that calculates the traveling block position, speed, weight and momentum before applying the braking system to slow down and eventually stop the traveling block when it approaches a crown-out or floor-out position. The system thus allows for the safe and efficient operation of a rig.

With respect to claim 4, the Examiner alleges Richardson teaches every element of the claim, but concedes that the reference does not explicitly disclose comparing the speed of the block to a maximum velocity, and does not teach determining the maximum velocity value as a function of the measured weight of the block. (See Office Action, pages 2-3). The Examiner asserts that because Richardson teaches the capability of monitoring the speed of the block and adjusting the speed of the block when the speed of the block exceeds a predetermined value, and because comparing the speed with a predetermined value for determining exceeding the value would have been well known, Richardson obviously encompasses comparing the speed of the block with the predetermined value. (See Office Action, page 3). However, claim 4 does not recite comparing the speed of the block with a predetermined value. Instead, claim 4 requires that the speed of the traveling block is compared with a value which is determined as a function of the measured weight on the traveling block. Neither Richardson nor Ruddy teach or suggest

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calculating the maximum speed of the traveling block based upon a measurement of the load. In the method according to Richardson, the operator inputs preset parameters for elevation, direction of travel, load and speed. It is this speed value against which the measured speed is compared. The pre-selected limits for speed and acceleration, load and limits of travel are "unalterably set for a particular size and type of oil well drilling apparatus at the owner's discretion." (See Richardson, col. 7, lines 53-57).

The Examiner also admits that Richardson does not explicitly disclose determining maximum velocity as a function of measured weight of the traveling block. (See Office Action, page 3). However, the Examiner asserts Richardson mentions the effect of the weight on the speed and Ruddy suggests determining maximum velocity value as a function of dynamic weight load. The Examiner then states that Ruddy further teaches that measuring the weight of a traveling block using a weight sensing device would have been known and that it would have been obvious to a person of ordinary skill in the art to include consideration of dynamic measurement of the block weight using well known weight sensors for determination of the maximum speed of the block in the process of Richardson. Applicant respectfully disagrees.

In citing Ruddy (col. 1, lines 60-63), the Examiner clearly overlooks that Ruddy teaches away from the use of sensors for dynamic determination of the block weight by stating that the signal generated from the load cell in a dynamic environment is typically inaccurate. (See Ruddy, col. 1, lines 63-65). Ruddy only discusses the use of load cells to demonstrate the shortcomings of the prior art and to illustrate the advantages of the method taught by Ruddy. Thus, a person of ordinary skill in the art would have no reasonable expectation of success in combining the teachings of Richardson with the load cells described in Ruddy to arrive at Applicant's invention.

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Finally, the Examiner alleges that Richardson teaches that because the length of the upper slow down zone (at 20 ft) is proportional to the velocity of the block, it is obvious that the length of the upper slow down zone is proportional to the momentum of the traveling block. (See Office Action, page 2). However, the Examiner provides no support for a proportionality between the upper slow down zone and the velocity of the block. The length of the upper slow down zone recited by the Examiner is merely one example of a pre-set elevation value input prior to the operation of the rig, and no support is provided to support the assertion that the slow down zone is proportional to either the velocity or the momentum of the traveling block. Neither Richardson, nor Ruddy, discuss a proportional relationship between the length of the upper slow down zone and the momentum of the block.

Thus, for the reasons noted above, the references do not support a prima facie case of obviousness. Reconsideration and withdrawal of the rejection are respectfully requested.

The rejection with respect to individual claims 5-6, 8 and 10-16 are not specifically addressed herein. However, Applicant does not acquiesce to the rejections and reserves the right to address the rejection of each claim in another document.

### **Conclusion**

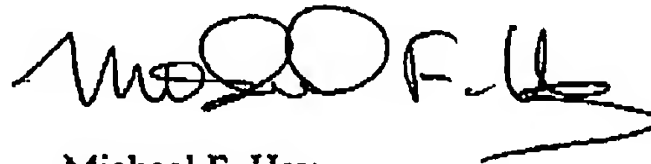
The foregoing is submitted as a full and complete response to the Official Action mailed on July 18, 2006. The Applicant has submitted remarks to traverse the rejections of pending Claims 4-6, 8, and 10-16 and has shown these claims are allowable over the art cited by the Examiner. Applicant respectfully requests that the Examiner withdraw all pending rejections to claims 4-6, 8 and 10-16.

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In the event that any matters remain to be resolved in view of this communication, the Examiner is encouraged to call the undersigned so that a prompt disposition of this application can be achieved.

Applicant believes no fees are due in association with this response. However, should the Commissioner deem any fees as being due, The Commissioner is hereby authorized to charge any fees due, or to credit any overpayments, to the United States Patent Office Deposit Account No. 50-3786, attorney docket no. 08876.105034. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extension fees to Deposit Account No. 50-3786, attorney docket no. 08876.105034.

Respectfully submitted



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